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Environment and Labour

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TO ALL NOVA SCOTIANS:

Enclosed is the following draft documents for your review and comment:

On-Site Sewage Disposal Systems Regulations
and Minor Amendment to Activities Designation Regulations

Nova Scotia Environment and Labour remains committed to consulting the public on all proposed legislation, regulations and significant policy statements. Accordingly, the Department is inviting written comments on the draft documents noted above. The deadline for written submissions is **March 6th, 2006.**

Submissions may be directed to:

On-site Sewage Disposal Systems Regulation Review
Policy Division
Nova Scotia Environment and Labour
PO Box 697, 5th Floor, 5151 Terminal Road
Halifax, NS B3J 2T8
Fax to (902) 424-0575 or by email to policy@gov.ns.ca.

If you have any specific questions pertaining to this draft document, please contact: Environmental Monitoring and Compliance Division at (902) 424-8108.

Additional copies are also available by phoning 1-800-567-7544 or in electronic form on our website **http://www.gov.ns.ca/enla/policy**.

NOVA SCOTIA ENVIRONMENT AND LABOUR
PROPOSED CHANGES TO THE *ON-SITE SEWAGE DISPOSAL SYSTEMS REGULATIONS*

FACT SHEET

Background

Nova Scotia Environment and Labour is inviting public comment on proposed changes to the *On-site Sewage Disposal Systems Regulations*.

Nova Scotia's *On-site Sewage Disposal Systems Regulations* are made under the *Environment Act*. This year the department ran a successful Pilot Project in Bedford and Bridgewater that allowed for faster approvals, coupled with increased field inspections. The goal now is to extend the process to the entire Province.

The *Regulations* set out the requirements and standards for the selection, design, construction, installation, covering, operation, maintenance and repair of an on-site sewage disposal system in the Province. An on-site system includes a septic tank, a disposal field and inter- connecting pipes, a holding tank, a privy, an innovative system, or other system, that meets specifications established by the Department and is not directly connected to a municipal system or an approved central sewage collection and treatment system, but does not include a wastewater treatment facility.

Overview

The current *On-site Sewage Disposal Systems Regulations* were written in 1997. The proposed amendments to the *On-site Sewage Disposal Systems Regulations* are intended to update a number of sections.
Highlights of proposed changes include:

- re-organization and renumbering of sections to flow more logically.
- clearer definitions and text.
- streamlining the application process.
- shifting the focus of the Division's work from reviewing plans to an increased role in the field, examining installations and assessing impacts on the environment.
- reducing clearance distances and allowing holding tanks to be used, in cases where it is established that there will not be an adverse impact on the environment. For those tanks that meet current CSA standards, it is proposed that the separation distance between a septic tank and a watercourse or a wetland be decreased from 30.5 meters to 15.2 meters. This change will allow for more flexibility when installing septic tank disposal systems on smaller sized lots but still maintains an adequate level of environmental protection.

- new provisions will allow for the amalgamation of undersized lots (two smaller lots). The current regulations do not permit this, as the total area of the combined lots does not meet the area requirements of Schedule A of the regulations. The proposed change would allow these lots to be amalgamated and developed as long as an on-site sewage disposal system could be designed and revised clearance distances are met.
- The proposed regulations will allow for increased use of holding tanks for limited temporary use for the farming, community service facilities and the construction sector. Currently, these tanks can only be installed in areas where there is insufficient land area and no other system can be designed. The changes would allow for more flexibility for the agricultural community where holding tanks could be installed for the harvest season or for community or church halls, where the usage is relatively limited. The construction industry would be permitted to install holding tanks at construction sites for limited periods of time (i.e. two years), while facilities are being constructed, thus preventing the disposal system from being destroyed or altered during the construction phase.
- Septic Pumpers of Nova Scotia have requested inclusion in the On-Site Regulations, to recognize training requirements for their members, and to create a certification program similar to installers. Improved professionalism and better waste management techniques are the desired outcomes of the proposed changes.

Written comments must be submitted by **March 6th, 2006** to: On-site Sewage Disposal Systems Regulations Review, Policy Division, Nova Scotia Environment and Labour, P.O. Box 697, 5th floor, 5151 Terminal Road, Halifax, NS B3J 2T8. Comments may also be faxed to (902) 424-0575, or e-mailed to policy@gov.ns.ca.

If you have a specific question pertaining to these draft documents, please contact: Environmental Monitoring and Compliance Division at (902) 424-8108.

Proposed *On-Site Sewage Disposal Systems Regulations*

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Schedule "A" - Minimum Lot Size Requirements .....

draft

Citation

1 These regulations may be cited as the *"On-Site Sewage Disposal Systems Regulations"*.

Definitions

2 In these regulations,

(a) "Act" mean the *Environment Act*.

(b) "administrator" means a person appointed by the Minister under section 21 of the Act to administer these regulations, and includes an acting Administrator;

(c) "approved central sewage collection and treatment system" means a system for central sewage collection and treatment that has been approved in writing by the Department, and includes an approved extension or modification of a system;

(d) "cluster system" means a system intended to service more than one building, structure or dwelling;

(e) "Department" means the Department of Environment and Labour;

(f) "development officer" means a development officer as defined in the *Municipal Government Act* and appointed by a municipality to approve subdivisions;

(g) "disposal field" means the part of an on-site sewage disposal system that distributes treated sewage into the soil;

(h) "distribution pipe" includes perforated or unperforated pipe that meets specifications prescribed or adopted by the Department;

(i) " foundation drainage system" means the subsurface layer of drainage tile or perforated piping and crushed rock or gravel laid around the exterior of the foundation of a dwelling or a structure and includes the pipe to a point of discharge;

(j) "friable material" means a material that when dry can be crumbled, pulverized or reduced to powder by hand pressure;

(k) "holding tank"means a closed watertight receptacle that is designed and used to receive and store sewage prior to collection by a septic tank cleaner;

(l) "inspector" means a person appointed by the Minister under section 21 of the Act, and includes an administrator;

(m) installer" means a person who holds a valid certificate of qualification issued pursuant to these regulations to construct or install a system;

(n) "malfunctioning system" means a system that, in the opinion of an inspector or an administrator, causes or may cause an adverse effect;

(o) "municipal system" means a sewage collection system owned and operated by or on behalf of a municipality;

(p) non-water carried toilet system" includes a composting toilet, a humus toilet, a chemical toilet.

(q) "on-site sewage disposal system" means
(i) a septic tank , a disposal field and inter- connecting pipes,
(ii) a holding tank,
(iii) a privy,
(iv) an innovative system, or
(v) a system, other than one described in subclauses (i) to (iv), that meets specifications established or adopted by the Department and is not directly connected to a municipal system or an approved central sewage collection and treatment system, but does not include a wastewater treatment facility.

(r) "privy" includes a pit or a vault privy;

(s) "pit privy" means a structure over a pit in which human waste is emitted into the soil;

(t) "qualified person" means a person, other than an employee of the Department, who meets the requirements prescribed in Section 34 of these regulations;

(u) "septic tank" means a watertight, covered receptacle designed and constructed to treat sewage prior to discharge to a disposal field or for further treatment;

(v) "septic tank pumper" means a person who is engaged in emptying and disposing of the contents of a septic tank, a holding tank, or a vault privy and is registered pursuant to these regulations;

(w) "sewage" means any human waste or wastewater emitted from a building, dwelling or structure where people work, live or frequent and includes wastewater from ablutions, culinary activities or laundering;

(x) "sewage management program" means a program established to maintain and control the storage and disposal of sewage from a holding tank or a cluster system;

(y) "soil evaluation test" means a procedure designed to determine the rate of movement or flow of water through soil in its natural state, the depth of bedrock, groundwater conditions or any other factors that effect the subsurface attenuation of sewage;

(z) "subdivider" means the owner of the area of land proposed to be subdivided and includes anyone acting with the owners consent;

(aa) "subdivision" means subdivision as defined in the *Municipal Government Act* ;

(bb) "system" means an on-site sewage disposal system, and includes any part of the system;

(cc) "temporary repair" means a small or minor repair or replacement to a malfunctioning system and includes a repair or replacement of a crushed pipe or a replacement of a collapsed septic tank.

(dd) "vault privy" means a structure over a closed watertight receptacle in which human waste is stored and is required to be pumped out from time to time;

(ee) "wastewater management district" means an area designated by municipal by-law in which a municipal unit is permitted to manage all wastewater disposal systems;

(ff) "watercourse" means the bed and shore of every river, stream, lake, creek, pond, spring, lagoon or other natural body of water, and the water therein, within the jurisdiction of the Province, whether it contains water or not and includes all ground water.

(gg) "wetland" means lands commonly referred to as marshes, swamps, fens, bogs and shallow water areas that are saturated with water long enough to promote aquatic processes, which are indicated by poorly drained soil, vegetation and various kinds of biological activity that are adapted to a wet environment;

Administration

3 (1) The Minister may appoint an administrator to administer these regulations

(2) Where there is a conflict between these regulations and any other regulation, directive, standard, guideline or policy, these regulations shall prevail.

Designation

4 The construction or installation of an on-site sewage disposal system is a designated activity under the Act.

PART I - Subdivision Requirements

Applicability of Part I

5 (1) Part I of these regulations applies to any lot shown on a plan or instrument of subdivision submitted to a development officer for approval except for a lot proposed for subdivision

(a) that is serviced by a municipal system or an approved central sewage collection and treatment system; or

(b) where the proposed lot is greater than 9000 m^2, the width is 76 m or more and a subdivider has indicated on the application for subdivision approval that the proposed lot is not intended for a purpose requiring an on-site sewage disposal system.

(2) Part I of these regulations does not apply to an existing, undeveloped lot.

Application process

6 (1) No person shall subdivide a lot unless the subdivider prepares and submits to a development officer as part of the application process under the *Municipal Government Act* documentation that includes the following information:

(a) the name and address of the owner of the lot to be subdivided and the name and address of all owners abutting the lot to be subdivided;

(b) where the subdivider is not the registered owner of the lot, proof of authorization from the owner appointing the applicant as the agent of the owner for the purpose of making the application;

(c) a plan or sketch of the lot to be subdivided showing

(i) the dimensions and area of the lot to be subdivided,

(ii) the lot layout including but not limited to proposed or existing buildings, systems, driveways, and water wells;

(iii) the location of watercourses, wetlands, marine waterbodies, and other features that may influence the design of the system, including but not limited to any ditches, roads or easements;

(iv) the surface slopes and directions;

(v) the location of any test pits; and

(vi) the proposed system, selected or designed for the lot;

(d) an explanation of the extent, volume and type of usage to which the system will be subjected;

(e) an assessment report of the lots suitability to support a system, including but not limited to the results of a soil evaluation test; and

(f) any other information required by an inspector.

(2) An inspector may review, audit and inspect any information supplied by a subdivider under subsection (1) including but not limited to an inspection of any test pits on the lot or a request for additional test pits.

(3) Upon request by a development officer, an inspector shall prepare a written report respecting the lot to be subdivided.

(4) The written report prepared under subsection (3) shall be forward to the development officer and the applicant indicating the following:

(a) the lot is suitable, with or without terms and conditions, for the construction or installation of a system;

(b) the lot is not suitable for the construction or installation of a system and the reasons for this determination;

(c) increasing the size of the lot serviced by an existing system does not negatively affect the operation of the system or result in the creation of a remainder lot that fails to meet the requirements of subsections (1) and (2); or

(d) the lot is intended for a purpose which does not require a system and the lot will not be eligible for approval to construct or install a system unless the requirements of these regulations are met, including the minimum lot specifications and requirements of Schedule "A".

(5) Any report made by an inspector or approval issued in relation to that report is based on the physical conditions of the lot proposed to be subdivided and the abutting property at the time of the report. Any change in those conditions may render the report or approval void.

Assessment report

7 (1) Subject to subsection(2), a subdivider shall engage a Level 1 or Level 2 qualified person to prepare the assessment report required under section 6(e).

(2) Upon written application by the subdivider, the Department may prepare the assessment report required under section 6(e).

Minimum lot requirements

8 (1) Subject to subsections (2), (4), (5) and (6) and Section 28, no person shall subdivide land, unless the minimum lot size specifications and requirements prescribed in schedule "A" are met.

(2) For a lot created for a purpose not requiring a system, the minimum lot size specifications and requirements prescribed in Schedule "A" do not apply provided the subdivision application is accompanied by the following information:

(a) the proposed use of the lot;

(b) the lot has been created for a purpose not requiring a system; and

(c) the lot will not be eligible for approval to construct or install a system unless the requirements of these regulations are met, including the minimum lot size specifications and requirements of Schedule "A".

(3) Subject to subsections (2) and (6) and section 29, no person shall subdivide land unless the lot to be subdivided can accommodate the installation of a system that complies with the clearance distances prescribed in Section 11 and the design requirements prescribed in Sections 13 to 20.

(4) For a lot created before August 6, 1984, the minimum lot specifications and requirements prescribed in Schedule "A" do not apply where

(a) the subdivider consolidates two or more parcels of land in accordance with the *Municipal Governments Act*;

(b) a Level 1 qualified person designs a proposed system for the lot; and

(c) the proposed system complies with the clearance distances prescribed in section 11 and the design requirements prescribed in Sections 13 to 20.

(5) For a lot created before August 6, 1984, that contains an existing system, the minimum lot size specifications and requirements prescribed in Schedule "A" do not apply where the size of the lot serviced by an existing system is being increased and this increase does not

(a) negatively affect the operation of the system; or

(b) result in the creation of a remainder that fails to meet the requirements of subsections (1) and (2).

(6) Where an inspector is of the opinion that the minimum lot size specifications and the requirements prescribed in this section and in Schedule "A" may create an adverse effect, an inspector may require greater lot size specifications and requirements.

(7) The inspector shall provide reasons in writing for the greater lot size specifications and requirements to the subdivider and the development officer.

PART II - System Approval

System approval requirements

9 (1) No person shall construct or install a system or cause the same to be done without first having applied for an approval with the Department.

(2) No person shall discharge sewage or cause the same to be done without first having received an approval for a system selection or design with the Department.

(3) Any person who constructs or installs a system or causes the same to be done without first receiving an approval for the selection or design shall, at their own expense, be required by an inspector to

(a) uncover the system for inspection;

(b) remove the system; or

(c) modify the system.

(4) No person shall construct, install, use or operate a system or cause the same to be done if an adverse effect may result.

Approval Application

10 (1) A person applying for an approval to install an on site sewage disposal system shall complete and submit an application on a form prescribed by the Department accompanied by the following information:

(a) the name, address, civic number and telephone number of the owner of the lot or the representative of the owner;

(b) a plan or sketch of the lot showing

(i) the dimensions and area of the lot to be assessed,

(ii) the lot layout, including but not limited to proposed or existing buildings, systems, driveways and water wells;

(iii) the location of watercourses, wetlands, marine waterbodies and other features that may influence the design of the system, including ditches, roads and easements;

(iv) the surface slopes and directions; and

(v) the location of any test pits.

(c) an assessment report of the lot respecting its suitability to support a system, including the results of a soil evaluation test;

(d) the proposed location of the system indicating compliance with clearance distances prescribed in section 11;

(e) details indicating that the design specifications prescribed in sections 13 to 20;

(f) an explanation of the extent, volume and type of usage to which the system will be subjected;

(g) the location and type of water supply proposed for the lot indicating compliance with the *Well Construction Regulations*;

(h) the location and type of existing water supplies and systems on adjoining lots, if any; and

(i) any other information required by an inspector.

(2) An applicant shall engage a Level 1 or Level 2 qualified person:

(a) to prepare the assessment report required under subsection (1)(c), where an assessment report has not been prepared pursuant to Section 7 of these regulations; and

(b) to prepare the information required under subsections 11 (1)(d) and (e).

(3) Upon written application by the proponent, the Department may prepare the assessment report required under section 11(1)(c) or the information required under sections 11(1)(d) and (e).

Clearance distances

11 (1) Subject to subsection (6) and Section 29, no person shall construct or install a system or cause the same to be done unless the clearance distances from the system are greater than

(a) 3 m from a boundary of the lot;

(b) 9 m from a boundary of the lot down slope from the disposal field;

(c) 15.2 m from a drilled well where the casing extends to a depth of not less than 6.1 m below the surface;

(d) 30.5 m from a dug well or any other water supply;

(e) 30.5 m from the disposal trench to any watercourse or marine water body;

(f) 15.2 m from the disposal trench to any wetland;

(g) 15.2 m from the septic tank and inter connecting pipe to any watercourse, wetland or marine water body;

(h) 15 m from a down slope drain or ditch that flows intermittently or an artificially created water body, except for drains or ditches that form an integral part of the system;

(i) 6 m from a municipal or private water distribution system; or

(j) 1.5 m from a foundation drainage system to a septic tank or vault privy.

(2) For the purposes of this section , a drilled well with less than 6.1 m of casing shall be considered a dug well.

(3) Subject to subsection (5) and section 29, no person shall construct or install a disposal field or a pit privy or cause the same to be done within 6 m from a foundation drainage system.

(4) Subject to subsection (5) and section 29, no person shall construct or install a system or cause the same to be done where the disposal field does not have a minimum vertical separation distance of 1 m between the bottom of the disposal field and any bedrock, maximum groundwater table or any other limiting conditions.

(5) Where an inspector is of the opinion that a system to be installed on a lot conforms with the minimum clearance distances prescribed in this section and may create an adverse effect, an inspector may require greater clearance distances and shall provide the reasons in writing to the applicant.

Selecting a system

12 (1) No person shall select a system for a single unit detached dwelling or structure under subsection (2) other than a Level 1 or Level 2 qualified person or an inspector.

(2) A system described in subsection (1) shall be suitable for the lot and shall be selected or designed from options contained in a publication entitled "On-Site Sewage Disposal Systems Technical Guidelines", as amended from time to time.

Designing a system

13 (1) Except as provided in Section 14, no person shall design an system for a commercial, institutional, industrial or residential structure, other than a Level 1 qualified person or an inspector.

(2) A system described under subsection (1) shall

(a) be suitable for the lot; and

(b) be capable of handling not less than 1000 L of sewage per day.

Design Specifications- general requirements

14 A qualified person or inspector who selects or designs a system under Section 13 or 14 shall include the following in their design:

(a) the location of any well or other source of water supply;

(b) the topography;

(c) the maximum elevation of the groundwater table;

(d) the elevation of bedrock;

(e) the soil characteristics;

(f) the area available for the system;

(g) the expected occupancy and intended use of any existing or proposed dwelling, building or structure to be serviced by the system;

(h) the capacity of the system; and

(i) any guidelines, policies or standards established or adopted by the Department.

Design specifications- sewer distribution pipes

15 (1) All pipes from the dwelling, building or structure to the septic tank, from the septic tank to the disposal field and within the disposal field shall meet specifications established or adopted by the Department.

(2) The minimum diameter of any pipe operating under gravity flow conditions and forming part of a system shall be 75 mm.

(3) With the exception of the disposal field distribution pipe, all piping forming part of the system shall be of watertight construction.

(4) The down slope of a pipe away from the dwelling, building or structure to a septic tank inlet shall not be less than 2%.

(5) No person shall fail to comply with the design specifications prescribed in this Section.

Design specifications- septic tanks

16 (1) A septic tank shall

(a) meet design criteria established or adopted by the Department;

(b) be watertight;

(c) be non-metallic; and

(d) if a prefabricated septic tank is used, conform to Standard CAN/CSA-B66-M90, published by the Canadian Standards Association in November, 1990, as amended from time to time and adopted by the Department.

(2) The liquid capacity of a septic tank for the intended use of the dwelling, building or structure to be served shall be determined by a Level 1 or Level 2 qualified person or an inspector and shall meet any guidelines or specifications established or adopted by the Department.

(3) Sufficient watertight access to a septic tank for maintenance, inspection, and pump out purposes must be provided.

(4) No person shall sell or offer for sale in the Province a septic tank or parts thereof, unless the design of the septic tank or parts thereof meets guidelines or specifications prescribed in this Section.

(5) No person shall fail to comply with the design specifications prescribed in this Section.

Design specifications- pump or siphon chambers

17 (1) Where the use of a pump is required,

(a) the pump chamber shall be watertight, equipped with an alarm, a level control, and any other accessories required by an inspector; and

(b) a minimum of 35 mm diameter pipe shall be used from the pump to the disposal field.

(2) Where the use of a siphon is required, the system shall follow a standard design established or adopted by the Department or be designed by a Level 1 qualified person or an inspector.

(3) No person shall fail to comply with the design specifications prescribed in this Section.

Design specifications- crushed rock or gravel for disposal field

18 (1) Crushed rock or gravel used in the construction of a disposal field shall meet the following requirements:

(a) be cleaned, washed and screened, and

(b) be free of soft or friable material;

(c) 98% (by weight) shall pass a 35 mm screen; and

(d) 98% (by weight) shall be retained on a 12 mm screen.

(2) Crushed rock or gravel shall be placed in the disposal field so that

(a) a minimum depth of 200 mm of crushed rock or gravel is placed beneath the distribution pipe; and

(b) a minimum depth of 75 mm of crushed rock or gravel is placed above the distribution pipe.

(3) Filter sand that meets the specifications of any approval to construct or install a system issued under these regulations or the "On-Site Sewage Disposal Systems Technical Guidelines" may replace a portion of the crushed rock or gravel required beneath the distribution pipe.

(4) No person shall fail to comply with the design specifications prescribed in this section.

Design specifications- covering a system

19 (1) Barrier material that meets specifications established or adopted by the Department shall separate the earth cover from the disposal field.

(2) A cover of earth over the disposal field shall be not less than 300 mm and not more than 450 mm deep.

(3) A cover of earth over the top of the septic tank, siphon chamber or pump chamber shall be

(a) not less than 150 mm and not more than 1500 mm deep; or

(b) according to the manufacturers specifications

unless otherwise specified in writing by a Level 1 qualified person or an inspector.

(4) No person shall fail to comply with the design specifications prescribed in this Section.

Design specifications- imported sand

20 No person shall import sand fill for the construction or installation of a system or cause the same to be done unless the sand fill meets specifications prescribed in any approval issued under these regulations or the "On-Site sewage Disposal Systems Technical Guidelines."

Review of application and decisions

21 (1) An inspector shall review a completed application submitted under Section 10 within the time frame prescribed in the *Act* and the *Approvals Procedure Regulations*.

(2) An inspector may

(a) request additional information; or

(b) request a change in the selection or design registered with the Department if the selection or design is not in accordance with these regulations or the On-Site Sewage Disposal Systems Technical Guidelines.

(3) No person shall continue with the installation of a registered system where the selection or design is not in accordance with these regulations or the On-Site Sewage Disposal Systems Technical Guidelines.

(4) No person shall continue with the installation of a registered selection or design where, in the opinion of the inspector, use of the proposed system may create an adverse effect, including

(a) contaminating a water supply or water used for human consumption;

(b) contaminating a watercourse, wetland or marine water body; or

(c) causing injury or harm to human health.

(5) No person shall construct or install more than one system on a lot unless

(a) the minimum lot specifications and requirements prescribed in Schedule "A" are available for each system proposed on the lot;

(b) the total of the minimum lot specifications and requirements for each system do not exceed the actual size of the lot;

(c) each system meets the clearance distances prescribed in Section 11; and

(d) a separate lot may be created containing the dwelling, building or structure and the system.

Inspector's authority

22 Where a qualified person selects or designs a system under Section 12 or 13, an inspector shall retain the authority to

(a) review any assessment report, plan, certificate of installation or any other information or document prepared by the qualified person;

(b) audit and inspect the installation of the system; and

(c) reject the submission of the qualified person on the grounds that the submission does not conform to the requirements of

(i) the Act,

(ii) these regulations,

(iii) any guidelines, policies and standards established or ad opted by the Department, or

(iv) any approval under these regulations.

and shall provide the reasons in writing.

Duration of approval

23 (1) Subject to subsection (3), a approval of a submission, to construct or install a system, shall be valid for 3 years from the date of approval.

(2) The applicant may apply in writing to the inspector to renew the approval.

(3) Where there is a change in conditions prior to or during the construction or installation of a system that may have an impact on the selection or design that has been approved, the applicant or their designate shall notify the inspector of the change before any work is undertaken.

(4) No person shall construct or install a system or cause the same to be done under subsection (3) until

(a) the selection or design has received an approval from the department; or

(b) the approved selection or design requires an amendment and the amendment has been approved.

Installing and covering a system

24 (1) No person shall construct or install a system or cause the same to be done unless the person is an installer.

(2) No person shall construct or install a system or cause the same to be done unless the system is constructed or installed in conformance with the Act, these regulations, the On-Site Sewage Disposal Systems Technical Guidelines and any approval under these regulations.

(3) No person shall construct or install a system without first having provided 3 days notice to an inspector.

(4) No person shall cover a system or cause the same to be done without first having obtained, from a qualified person or an inspector who selected or designed the system, a certificate of installation in a format established by the Department which states that the system is registered for the lot and has been installed in conformance with the Act, these regulations, the On-Site Sewage Disposal Systems Technical Guidelines, and the approval issued under these regulations.

(5) Subject to subsection (12), the qualified person or inspector who selects or designs a system under section 12 and 13 shall issue a certificate of installation for that system.

(6) No person shall issue a certificate of installation except the qualified person or inspector who selected or designed the system.

(7) Not withstanding subsections (5) and (6), where the qualified person or an inspector who selected or designed the system is unavailable to issue the certificate of installation, another qualified person or inspector may issue the certificate of installation if that person is permitted to do so by an administrator.

(8) Subject to subsections (7) and (11) no qualified person or inspector shall select or

design a system without issuing a certificate of installation for that system.

(9) A qualified person who issues a certificate of installation under subsection (5) shall supply a copy of the certificate of installation to the Department, the building inspector, the owner of the lot and the installer and that certificate shall be supplied to the inspector within 15 days of the installation of the system.

(10) An inspector who issues a certificate of installation under subsection (5) shall supply a copy of the certificate of installation to the building inspector, the owner of the lot and the installer.

(11) Where a qualified person or an inspector refuses to issue a certificate of installation because

(a) the installation of the system fails to comply with the Act, these regulations or the On-Site Sewage Disposal Systems Technical Guidelines; or

(b) the installation does not comply with the approval;

that person shall prepare a written report including an explanation of the non-compliance and that report shall be provided to the owner of the lot and the Department within 15 days of the installation of the system.

(12) Where a system has been constructed, installed or covered that does not comply with this Section, an inspector may, if necessary in the opinion of the inspector, direct the installer, the owner or the qualified person at their own expense, to uncover the system for inspection and to repair the system within a prescribed period of time.

(13) No person shall fail to comply with a direction issued under subsection (12).

Operating, maintaining and repairing a system

25 (1) No owner of a lot shall fail to operate and maintain a system according to the requirements of the Act, these regulations, and any approval under these regulations.

(2) Subject to subsection 26(3) and (8), no owner of a lot shall fail to replace, alter, upgrade or repair a malfunctioning system in accordance with the requirements of the Act, these regulations and any approval.

Malfunctioning system

26 (1) An inspector may require, in writing, the owner of a lot to

(a) replace, alter, upgrade or repair a malfunctioning system at the expense of the owner; and

(b) replace, alter, upgrade or repair the malfunctioning system in accordance with the

registered selection or design pursuant to clause (a).

(2) No person shall fail to comply with a request under subsection (1).

(3) No person shall replace, alter, upgrade or repair a malfunctioning system without first having registered the selection or design for the malfunctioning system.

(4) Despite subsection (3), in an emergency situation an installer may make temporary repairs to a malfunctioning system and the installer shall notify an inspector within 3 days of making the temporary repairs.

(5) No person shall fail to provide notice to an inspector as required under subsection (4).

(6) An inspector may audit and inspect any temporary repairs to a malfunctioning system.

(7) Where, in the opinion of an inspector, a temporary repair of a malfunctioning system

(a) fails to meet the requirements of the Act, these regulations or the "On-Site Sewage Disposal Systems Technical Guidelines" published by the Department; or

(b) may create an adverse effect,

an inspector may require the installer to uncover, remove or modify the temporary repair of the malfunctioning system within a prescribed period of time.

(8) An inspector may accept the approval of a selection or design to replace, alter, upgrade or repair a malfunctioning system where the replacement, alteration, upgrade or repair does not meet the requirements of the Act, these regulations or the "On-Site Sewage Disposal Systems Technical Guidelines" published by the Department, provided that

(a) no system that contains a septic tank, disposal field and interconnecting pipes and that meets the requirements of the Act, these regulations or the "On-Site Sewage Disposal Systems Technical Guidelines" can be constructed or installed on the lot; and

(b) in the opinion of the inspector, the replacement, alteration, upgrade or repair will result in an immediate reduction of any adverse effects.

Deficiencies of system

27 (1) If an inspector becomes aware of deficiencies in the selection, design, construction or installation of a system, revealing non-compliance with the Act, these regulations, the On-Site Sewage Disposal Systems Technical Guidelines or a approval under these regulations, an inspector

(a) shall inform in writing, the qualified person who selected or designed the system, the installer and the owner of the lot, of the deficiencies; and

(b) may order the qualified person, installer or owner to remedy the deficiencies at their own expense within a prescribed period of time.

(2) No person shall fail to comply with any requirements under subsection (1).

Variations

28 (1) A person may submit an application in writing to an administrator to grant a variation from

(a) minimum lot requirements prescribed in Section 8 and 21(5);

(b) clearance distances prescribed in Section 11; or

(c) design specifications prescribed in Sections 13 to 20.

(2) An application under subsection (1) shall provide

(a) detailed reasons why a variation is requested and necessary; and

(b) any other information required by an administrator.

(3) An administrator may grant a variation in writing where, in the opinion of the administrator, information provided under subsection (2) shows that failure to meet the requirements of these regulations will not create an adverse effect.

(4) Despite subsection (3), an administrator shall refuse to grant a variation where

(a) the lot is created by an instrument of subdivision as defined under the *Municipal Government Act*;

(b) granting the variation would violate the intent of the Act, the regulations or the On-Site Sewage Disposal Systems Technical Guidelines;

(c) the difficulty experienced results from wilful, intentional or negligent disregard of the Act, regulations or the guidelines;

(d) the minimum lot requirements, clearance distances and specifications can be met; or

(e) an application for a variation has already been denied by the Minister or a former Board of Health under the Health Act,

and the administrator shall provide, in writing, the reasons for refusing to grant the variation.

(5) Where a variation is granted by an administrator, the lot shall be deemed to meet the applicable requirements of these regulations.

PART III- Other Matters

Innovative systems

29 (1) No person shall construct or install an innovative system or cause the same to be done without first having applied to an administrator for an approval for the innovative system.

(2) Subject to a review by the Department, an administrator may permit the approval of an innovative system;

(3) Under subsection (2) a approval, with the permission of the administrator, shall be permitted and shall be subject to terms and conditions including but not limited to:

(i) design specifications;

(ii) installation requirements;

(iii) compliance monitoring;

(iv) location and type of possible system replacement;

(v) financial or other security; and

(vi) any other term or condition considered necessary in the opinion of an administrator.

Non-water carried toilet systems

30 (1) No person shall construct, install, use or operate a non-water carried toilet system or cause the same to be done if an adverse effect may result.

(2) No person shall handle or dispose of sewage, waste, residue, ash or other organic material from a non-water carried toilet system in a manner that may create an adverse effect.

Holding tanks

31 (1) No person shall construct or install a holding tank for the storage of sewage or cause the same to be done without first having obtained an approval from the Department.

(2) An applicant applying for an approval to install a holding tank shall retain a Level 1 or Level 2 qualified person to prepare an application for approval and submit an assessment report to an inspector.

(3) Upon written application, the Department may prepare the report required under subsection (2).

(4) No person, except an installer, shall install a holding tank or cause the same to be done.

(5) An inspector may accept a approval to construct or install a holding tank in order to repair or replace an existing malfunctioning system that cannot be corrected by the installation of a new septic tank, disposal field and inter-connecting pipes or by upgrading the existing system.

(6) An approval to construct or install a holding tank may be issued by an inspector for a lot without an existing system only if

(a) the lot was created prior to August 6, 1984;

(b) the lot is unsuitable for the installation of a septic tank and a disposal field;

(c) the municipality where the lot is located has established a wastewater management district or a person has prepared a sewage management program that is considered acceptable by the inspector; and

(d) the municipal planning strategy land use by-law or other municipal policy adopted pursuant to the Municipal Government Act for the municipality where the holding tank is to be located does not restrict or prohibit the use of a holding tank.

(7) When a municipal system or an approved central sewage collection and treatment system becomes available, the lot owner shall immediately discontinue use of the holding tank and connect the dwelling, building or structure to the municipal system or the approved central sewage collection and treatment system.

(8) No person who has registered a selection or design under this section and subject to subsection (5) or (6) shall fail to follow the requirements for location, size, design, construction, connection, installation, maintenance and repair of the holding tank as prescribed by an inspector.

(9) A holding tank shall

(a) meet design specifications established or adopted by the Department;

(b) be watertight;

(c) be non-corrodible, if above ground;

(d) be non-metallic, if below ground; and

(e) if a prefabricated holding tank is used, conform to Standard CAN/CSA-B66-M90, published by the Canadian Standards Association in November, 1990, as amended from time to time and adopted by the Department (ambulatory).

(10) Despite subsection (6) an administrator may accept a approval for the construction and installation of a holding tank for use:

(a) on a construction site where the use of the holding tank will be no longer than 2 years;

(b) in the agricultural industry where the use is temporary and not for more than 3 months of the year; or

(c) in relation to community owned buildings where the volume is less than 1000 L per week.

Cluster systems

32 (1) No person shall construct or install a cluster system or cause the same to be done without first having obtained an approval from the Department.

(2) No person shall design a cluster system except a level 1 qualified person.

(3) Despite subsection (2), upon written application, an inspector may design the cluster system.

(4) Subject to Section 29, an inspector may approve an application to construct or install a cluster system where the volume of sewage to which the system will be subjected is less than 1500 L per day, provided

(a) the minimum lot specifications prescribed by the inspector are met;

(b) the system meets minimum clearance distances prescribed in Section 12; and

(c) such other requirements including compliance with the On Site Sewage Disposal Systems Technical Guidelines or such other guidelines as developed by the Department from time to time are met.

(5) Subject to Section 29, an inspector may register an application for the construction or installation of a cluster system to service more than one building, structure or dwelling where the volume of sewage to which the system will be subjected is more than 1500 L per day, provided

(a) the municipality where the lot is located has established a wastewater management district or a person has prepared a sewage management program that is considered acceptable by the inspector;

(b) the minimum lot specifications prescribed by the inspector are met;

(c) the system meets minimum clearance distances prescribed in Section 12;

(d) the municipal planning strategy or municipal policy adopted pursuant to the *Municipal Government Act* for the municipality where the cluster system is located do not restrict or prohibit the use of a cluster system; and

(e) such other requirements including compliance with the On Site Sewage Disposal Systems Technical Guidelines or such other guidelines as developed by the Department from time to time are met.

(6) Where an inspector is of the opi nion that the minimum lot specifications and requirements including the On Site Sewage Disposal Systems Technical Guidelines, such other Guidelines developed by the Department from time to time and as prescribed in clauses (4) and (5) may create an adverse effect the inspector may require greater lot specifications and requirements as deemed necessary and shall provide the reasons in writing.

Department Services/fees

33 (1) The Minister may establish guidelines or criteria describing where the Minister may provide services in substitution for a qualified person.

(2) The Minister may establish a fee for any approval of a system, renewal, certificate of qualification, approval, report, or other documentation or services required under these regulations.

PART IV - Certificate of Qualification

Qualified person

34 (1) A person who performs or intends to perform the services of a qualified person shall comply with the following requirements:

(a) a Level 1 qualified person shall

(i) be a professional engineer who is registered to practice in the Province;

(ii) hold valid professional liability insurance; and

(iii) perform tasks as prescribed in these regulations.

(b) a Level 2 qualified person shall

(i) have successfully completed a course of instruction established or adopted by the Department;

(ii) hold a valid certificate of qualification issued by an administrator or a person authorized by an administrator;

(iii) hold valid professional liability insurance; and

(iv) perform tasks as prescribed in these regulations.

(2) The Department may establish or adopt policies, guidelines or criteria to be met by a qualified person.

(3) The Department shall keep a list of Level 2 qualified persons and make the list available to the public.

(4) No person shall hold themselves out to be or perform the services of a qualified person unless that person complies with the Act, these regulations and any policies, guidelines or criteria established or adopted by the Department.

(5) An administrator may issue or authorize the issuance of a certificate of qualification to a Level 2 person who

(a) satisfactorily completes any required course of instruction established or approved by the department;

(b) makes an application on a form prescribed by the department:

(c) pays a fee established by the minister; and

(d) holds valid professional liability insurance.

(6) The administrator may impose terms and conditions in a certificate of qualification issued under these regulations.

(7) Subject to subsections 8 and 9, a certificate of qualification issued to a level 2 qualified person shall expire on December 31st of the calender year in which the certificate was issued.

(8) A certificate of qualification issued to a level 2 qualified person may be renewed by an administrator if the level 2 qualified person

(a) makes an application on a form established by the Department;

(b) makes the renewal application at least two weeks before the expiration of the certificate of qualification;

(c) pays a fee established by the Minister;

(d) satisfactorily completes any required course of instruction established or approved by the Department; and

(e) holds valid professional liability insurance.

(9) A certificate of qualification issued to a level 2 qualified person may be cancelled or suspended by an administrator if the holder does not comply with

(a) the Act;

(b) these regulations;

(c) any guidelines, standards or policies established or adopted by the Department;

(d) the terms or conditions of a certificate of qualification issued under these regulations;

(e) the approval of the system issued under these regulations; and

(f) atisfactorily complete any required course of instruction established or approved by the Department.

(10) The administrator shall supply reasons, in writing, to the level 2 qualified person for a cancellation or suspension of the certificate of qualification under subsection (9)

(11) A certification of qualification which has been cancelled or suspended pursuant to subsection (9) may be re-instated by the administrator if the holder of the certificate of qualification complies with the terms and conditions that may be prescribed by the administrator.

(12) No qualified person shall fail to comply with the requirements of

(a) the Act;

(b) these regulations;

(c) any guidelines, standards, and policies established or adopted by the Department;

(d) the terms and conditions of any certificate of qualification issued under these regulations; and

(e) any approval issued under these regulations.

(13) A Level 2 qualified person shall carry a valid certificate of qualification at all times.

(14) No level 2 qualified person shall refuse to present a valid certificate of qualification to an inspector upon request.

Installers

35 (1) Subject to subsection (2), no person shall install a system, or cause the same to be done or hold themselves out as an installer of a system unless that person holds a valid certificate of qualification issued under these regulations.

(2) Subsection (1) does not apply to

(a) a person who constructs or installs a pit privy; or

(b) a helper who is assisting a person who holds a valid certificate of qualification.

(3) An administrator may issue or authorize the issuance of a certificate of qualification to a person who

(a) satisfactorily completes a course of instruction established or approved by the Department;

(b) makes application on a form prescribed by the Department; and

(c) pays a fee established by the Minister.

(4) The administrator may impose terms and conditions in a certificate of qualification issued under these regulations.

(5) The Department shall keep a list of persons who hold valid certificates of qualification and make the list available to the public.

(6) Subject to subsection (7) and (8) , a certificate of qualification issued to an installer shall expire on December 31 of the calender year in which the certificate was issued.

(7) A certificate of qualification issued to an installer may be renewed by an administrator if the installer

(a) makes an application for renewal on a form prescribed by the Department;

(b) makes the renewal application at least two weeks before the expiration of the certificate of qualification;

(c) pays a fee established by the Minister; and

(d) satisfactorily completes any required courses of instruction established or approved by the Department.

(8) A certificate of qualification issued to an installer may be cancelled or suspended by an administrator if the holder does not comply with

(a) the Act;

(b) these regulations;

(c) any guidelines, standards or policies established or adopted by the Department;

(d) the terms or conditions or a certificate of installation or qualification issued under these regulation; or

(e) a approval issued under these regulations.

(9) The administrator shall supply reasons in writing for cancellation or suspension under subsection (8).

(10) A certificate of qualification which has been cancelled or suspended pursuant to subsection (8) may be re-instated by the administrator if the holder of the certificate of qualification undertakes to comply with any terms and conditions which may be prescribed by the administrator.

(11) No installer shall fail to comply with the requirements of

(a) The Act;

(b) these regulations;

(c) any guidelines, standards and policies established or adopted by the Department;

(d) the terms and conditions of any certificate of qualification issued under these regulations; or

(e) any approval issued under these regulations.

(12) An installer shall carry a valid certificate of qualification at all times.

(13) No installer shall refuse to present a valid certificate of qualification to an inspector upon request.

Septic pumpers

36 (1) No person shall engage in the business of pumping a septic tank or hold themselves out as a septic tank pumper without holding a certificate of qualification.

(2) The Department shall keep a list of names registered under subsection (1) and make the list available to the public.

(3) No septic tank pumper shall dispose of sewage except at a disposal facility approved by the Department.

(4) An administrator may issue or authorize the issuance of a certificate of qualification to a person who

(a) satisfactorily completes any required course of instruction established or approved by the Department;

(b) makes an application on a form established by the Department; and

(c) pays a fee established by the Minister.

(5) The administrator may impose terms and conditions in a certificate of qualification issued under these regulations.

(6) Subject to subsection (7) and (8), a certificate of qualification issued to a pumper shall expire on December 31 of the calendar year in which the certificate was issued.

(7) A certificate of qualification issued to a pumper may be renewed by an administrator if the pumper

(a) makes an application for renewal on a form established by the Department;

(b) makes the renewal application at least 2 weeks before the expiration of the certificate of qualification;

(c) pays a fee established by the Minister; and

(d) satisfactorily completes any required course of instruction established or approved by the Department.

(8) A certificate of qualification issued to a pumper may be cancelled or suspended by an administrator if the holder does not comply with

(a) the Act;

(b) these regulations;

(c) any guidelines, standards or policies established or adopted by the Department;

(d) the terms or conditions of a certificate of qualification issued under these regulations; and

(e) any approval issued under these regulations.

(9) The administrator shall supply reasons in writing for cancellation or suspension under subsection (8).

(10) A certificate of qualification which has been cancelled or suspended pursuant to subsection (8) may be reinstated by the administrator if the holder of the certificate of qualification undertakes to comply with any terms and conditions that may be prescribed by the administrator.

(11) No pumper shall fail to comply with the requirements of

(a) the Act;

(b) these regulations;

(c) any guidelines, standards and policies established or adopted by the Department; or

(d) the terms and conditions of any certificate of qualification issued under these regulations.

(12) A pumper shall carry, or have readily available, a valid certificate of qualification at all times that the pumper is performing the services of a pumper.

(13) No pumper shall refuse to present a valid certificate of qualification to an inspector upon request.

Effective date

37 These regulations shall come into force on, from and after

Schedule "A"
Minimum Lot Size Requirements for Lots
Utilizing On-site Sewage Disposal Systems*

Category	Depth of permeable soil (mm)	Lot area (m^2)	Lot Width (m)
1	greater than 900	2700	37
1	600 to 900	3150	37
1	greater than 600 on a waterfront lot	3716	45
2	300 to 600	4500	53
3	150 to 300	6800	60
4	less than 150	9000	76

Notes:(Should these be put in the definition section)

(1) "Waterfront lot" means any lot containing a system, any portion of which is within 60 m of the shore of a lake, river, stream, or marine waterbody.

(2) To meet the above categories, there must be sufficient soils of the type, permeability, depth and area to permit the installation of a system.

(3) "Lot width" means the minimum width of the lot measured at the centre of the proposed or existing system.

(4) "Permeable soil" means

(a) unsaturated soil in its natural state that has a saturated hydraulic conductivity of greater than 3×10^{-6} m/sec and less than 5×10^{-4} m/sec. as measured using an in situ soil permeability test as described in the February 10, 2000 "Interim On-site Sewage Disposal Technical Guidelines", or

(b) in the absence of a soil permeability test and following inspection of one or more test pits, soil considered by an inspector or qualified person to be permeable soil.

* Schedule "A" applies to systems with a maximum daily flow of up to 1500 ℓ per day. For systems with greater than 1500 ℓ per day flow, larger lot areas and lot widths may be required.

Division VII - On-site Sewage Disposal System Approvals

31 The selection, design, construction, installation, covering, operation, maintenance and repair of an on-site sewage disposal system, including:

(i) a septic tank , a disposal field and inter- connecting pipes,

(ii) a holding tank,

(iii) a privy,

(iv) an innovative system, or

(v) a system, other than one described in subclauses (i) to (iv), that meets specifications established or adopted by the Department and is not directly connected to a municipal system or an approved central sewage collection and treatment system, but does not include a wastewater treatment facility;

is a designated activity.

On-Site Sewage Disposal Systems Pilot Project and Proposed Regulation Changes December 2005

Introduction:

The province of Nova Scotia's On-Site Sewage Disposal Systems Regulations have been in effect since 1975, first under the management of the Department of Health and since 1994, under the management of the Department of Environment and Labour. Prior to 1975, the authority for on-site sewage was vested in the municipal units. Throughout the past 30 years the on-site regulations have changed as technology changed and the way government conducted business changed.

Changes in technology permitted industry to move away from the trenched area beds to the introduction of the contour system in 1985 and the peat system in 2000. Changes to the regulations included lot size increases which started in 1975 with the minimum lot size being 20,000 square feet to today's standard lot being 30,000 square feet for category 1 lots. During this period government also decreased lot sizes for larger lot size categories, as 200,000 square foot lots have been decreased to 100,000 square feet over the years due to these technological changes. Changes to the regulations were also made in lot categorization. In 1975 there were two categories of lots; today, there are four. These changes permitted lots which at one time would not have received approvals to be developed.

In 1997, the department introduced a major change in the regulations whereby the department trained and qualified private individuals to select and design on-site sewage disposal systems. Since then, industry and government have worked co-operatively to foster an excellent working relationship and sustainable environment. Changes to the current regulations are necessary to support improvements in technology, to recognize industry's capabilities, and to reflect the department's capacity in the area of program delivery. The pilot demonstrates that this can be achieved while still maintaining an adequate level of consumer and environmental protection.

History:

1997 The province undertook significant changes to the On-Site Sewage Disposal Systems Regulations, which allowed for the participation of the qualified individuals to assess lots, design and select on-site sewage disposal systems. Prior to this change, the traditional method required staff from the Department of Health (1975 until 1995) and then Environment and Labour (1995 to present) to design, select and approve their own work. Between 1997 and 2000 training sessions were delivered by department staff and private facilitators across the

province to train people in the industry in lot assessments, selection and design of on-site sewage disposal systems.

2000 The designation of Qualified Person's (QPs) was fully implemented in 2000 when it was determined that there were sufficient numbers of QPs to adequately handle the quantity of on-site applications in the province. The QPs consisted of engineers that were qualified by APENS to assess lots and design on-site sewage disposal systems (QP1) and individuals that successfully completed the training sessions (QP2). The QP1 engineers have the ability to design, select and assess lots while the QP2s are able to select pre-designed systems from the On-Site Sewage Disposal Systems Guidelines.

2003 The provincial government undertook a review of the On-Site program to assess how the program had evolved since the inception of QPs, to review the program delivery across the province and to seek areas for improvement. This was achieved through province wide consultations with the industry and members of the public including written submissions and open meetings in all areas of the province. As a result, the review committee made a number of recommendations; the primary recommendation was that the process by which government issues on-site sewage disposal system approvals needed to become more flexible.

2005 Environment and Labour implemented a pilot project in April. The pilot enabled qualified persons to receive a letter of acknowledgment/ approval without a formal review of a selected number of their on-site sewage applications. The pilot was used to determine what the outcomes would be if the process used by the department to process on-site sewage applications was changed. This approach was consistent with the process implemented in British Columbia (May 2005) which resulted in decreased processing times. The Nova Scotia program, however, maintains an auditing function designed to maintain quality assurance and quality control designed to protect the consumer.

Central Region's Bedford office and Western Region's Bridgewater office were selected to deliver the pilot as the Bedford office handles 100% of the on-site applications in the Central Region while Bridgewater handles 40% of the applications for Western Region. Additionally, the managers responsible for the project resided in these offices, thus the process could be more readily assessed and reviewed.

PILOT PROJECT APPROVAL PROCESS

The objective of the pilot was to determine what outcomes would be achieved if the on-site sewage application/ approval process was changed to more of a registration process. Special attention was placed on measuring turnaround times, environmental impact and industry and consumer satisfaction. The process ensured there would be government interaction at different stages of the approval process.

The most significant change implemented with the pilot project was the removal of a formal review of each application while adopting a notification or streamlined approval type of process. This enabled staff resources to focus on auditing and enforcement through site visits rather than reviewing applications submitted by qualified people, which was the intention when QP1s and QP2s were originally recognized in 2000.

The process implemented in the pilot was similar to that being used in British Columbia for issuing on-site sewage approvals. This process requires the QPs to submit a completed application along with appropriate documentation(i.e. deeds, cross sections of system selection) and a signed a check list, ensuring that the appropriate regulations and technical guidelines are followed.

In response to the application, an acknowledgment letter/approval (current regulatory requirement) was sent to the applicant in place of the regular departmental approval. Approved by legal counsel, this letter/approval can be generated from the Department's own data base (EIMAS). This allowed the Division to reduce the current 11-page approval to a 2-page letter.

The process for issuing approvals during the pilot was as follows:

1. QPs submit a completed application including a signed checklist stating they have complied with the regulations, technical guidelines and industry standards.

2. The application is entered into the tracking system (EIMAS) and forwarded to the appropriate inspector. Using an auditing matrix, which ensures each individual QP is audited the same number of times annually, but randomly, the file is either selected for some level of review or exempt from a review(OR) in which case an approval is issued. If selected for review, it is assigned either a desktop (DR) or full review (FR). DR: A desk top review is similar to the process we now employ, whereby the file is reviewed and a site visit may be required based on the information presented in the application and an approval is issued. FR: A full review of the application is to be completed with lot inspection which includes a test pit evaluation. A breakdown of applications demonstrated that 70% were ORs, DRs accounted for 20% and the FRs were 10% of the applications.

3. After completing the appropriate level of review, an approval is issued or the application is rejected. Based on the type of review, a determination was made as to whether a final inspection of the installed system would be required. This information was for internal use, and not given to the QP or the installer, as this became a part of the auditing process.

The process selected is similar to that of British Columbia, however, in B.C. the applicant registers with the department and the applicant receives a confirmation

number. The department has no other involvement and it is solely the responsibility of the qualified person to ensure all standards, regulations and guidelines are followed. There are no audits, inspections or follow up required by inspection staff. Most other jurisdictions reviewed in Canada, including New Brunswick, Prince Edward Island and Alberta, still require an approval and have a process by which final inspections and audits are carried out by departmental staff.

PILOT PROJECT OUTCOMES

1. **Turn around time** (the amount of time from the date of application until the approval or rejection is issued): Two sets of numbers were reviewed in order to determine whether the turn around time improved during the pilot. EIMAS, which tracks all applications was used as well as a manual tracking system. The difference in the tracking systems, is that EIMAS counts all days including weekends and holidays whereas the manual tracking system only counts business days. The following table illustrates the average number of days it took to process an application in 2004 and 2005 in EIMAS and, in 2005, in the manual tracking system.

Turnaround Time: Avg. Time in Days

OFFICE	EIMAS 2004 January 1 - December 31	EIMAS 2004 April 1- August 15	EIMAS 2005 April 1 - August 15	Manual Tracking
Bedford	18.37	20.63	8.19	2.82
Bridgewater	38.41	46.83	10.14	4.70
Average	28.39	33.73	9.16	3.76

2.a **Auditing of Systems:** One of the main objectives of the pilot was to determine if there would be an increase in the amount of time available for the auditing function of the program. Prior to start up staff normally completed audits on 40% of the systems. It was decided that any approval issued under an OR (no review of the application) would require a final inspection of the system prior to it being covered with soil. This was based on advice received from legal counsel indicating that if applications were not reviewed in the beginning of the process, the systems should be inspected prior to being covered. OR applications accounted for 70% of the total number and FR (full review) applications account for 10%, therefore the total number of final audits increased from 40% to 80%.

Feedback from industry revealed that an 80% rate of final audit slowed down the covering of the completed systems as staff cannot conduct inspections at a rate consistent with the demand. The systems audited at the final installation stage revealed very few discrepancies.

2.b **Auditing of Applications:** To determine if the applications and attachments were completed properly, management completed a number of audits on files as they were being processed. Generally the applications were completed properly with proper designs and selections, with the most common problems being clerical or administrative in nature. This was a small percentage of the applications which would not have effected the operation of the system. Some of the minor errors were failure to sign off on the checklist or forgetting to attach the deed to the property.

3. **Red Tape Reduction:** This pilot allowed the applicant to receive their approval in just under an average of four days. This shorter period allows an applicant to obtain a building permit faster thus allowing more time for construction. This was in keeping with the priorities of the Department's Business Plan to balance effective environmental protection while permitting flexibility in the process.

4. **Homeowner Protection:** By increasing the number of audits on the systems being installed, the Department provided increased protection to the homeowner by ensuring systems are installed properly. The department is currently inspecting 40% of all systems being installed throughout the province. With the change in the process, a 60% audit will be accomplished.

5. **Concerns from clients:** The pilot has seen a reduction in the number of concerns from industry and the public regarding turn around times as well as concerns regarding the overall program. Comments received from management indicate that complaints regarding the program have decreased during the pilot.

6. **Effect on other programs delivered by the Department:** In an effort to ensure other responsibilities of the department did not suffer as a result of this pilot, consideration was given to other programs completed by staff working within the on-site program. Statistics indicate that there has been an overall improvement in the turnaround times for subdivision reviews as well as the on-site program.

COMMENTS FROM INDUSTRY:

As part of the review of the pilot, comments were solicited from industry to gauge its success and areas for improvements. A number of individuals including QPs, installers and home builders were contacted. Overall the comments were positive with respect to the new method of issuing approvals. Clients were satisfied with the approval processing times which improved their construction times.

Complaints received indicated that in some instances there had been slow downs in the issuance of approvals. On review it was found that these tended to occur when the process was not followed consistently.

Questions were raised regarding processing times. It is imperative these complaints are addressed and rectified quickly. As staff gained comfort with the new system, processing times improved substantially.

Another problem discovered in the pilot was that QPs were giving their three day notice to audit the installation of the system after receiving their approval, with no intention of installing the system within the three days. It became necessary to inform QPs an inspection would be required on the system whether it was predetermined for review or not.

Below are a few of the comments received from industry:

"Much better turnaround time this year than last year which is better for myself and my clients." Bob Forbes, QP1, Bridgewater

"Concept is good but has to be implemented consistently by all inspectors. If some inspectors do not buy in, then there is no consistency." Lester Berrigan, QP2, Bridgewater

"The new process has decreased turnaround time very much. There is a small problem where the final inspections that have to be completed are taking a little longer than the installers would like. This can be easily rectified by increasing staff or decreasing audits." Paul Sinclair QP2 Bedford

"The concept is a great idea and we would like to see it continue as our approvals are getting back to us within a few days of making the application." Sandra Marchand, RAMAR Home Builders, Bedford

CONCLUSION

The application and approval process employed during the pilot project has shown a regulation change that would allow for streamlined approval of on-site projects would be a positive move forward. Under a streamlined approval process, the department would continue to audit a random number of applications to ensure that QPs not completing the applications properly are addressed in an appropriate manner. The auditing of the systems at the final stage will continue, to ensure there is protection for the homeowner and the systems being installed are correctly selected or designed. This creates a system of checks and balances that maintains confidence and quality control for the system.

The number of audits on the installation of on-site sewage disposal systems will be reduced to 60% for all applications rather than the current 80%. This is still an increase of 20% from the current level of final inspections, which is that 40% are subject to final inspection.

The pilot project has demonstrated that with minor changes, industry and the public could achieve significant benefits including: reduced turn around times, allow all QPs to conduct business consistent with their training, and an approved way to conduct the department's audit function while effectively protecting the environment and our customers.

PATH FORWARD

The success of the pilot, requests from other regions to participate in the pilot, and changes to technology indicate that it is time to move forward with changes to the regulations. The following is a list of the proposed changes which have been developed by reviewing other provincial regulatory requirements, the pilot results, changes to technology and overall feedback from industry. These proposed changes will allow the On-Site Program and On-Site Regulations to offer more flexibility and decrease red tape.

PROPOSED CHANGES

1. **Streamlined Approval Process:** Change the current approval process outlined in the On-Site Sewage Disposal Systems Regulations to a streamlined process. With this change the applicant would receive a written confirmation number upon sending in the application as opposed to waiting for a full detailed approval as is the practice of today.

2. **Clearance distances:** In past years, many improvements have been made in the quality of septic tanks. Due the testing of septic tanks for water tightness, as part of their approval to manufacture tanks, it is proposed that the separation distance between a septic tank and a watercourse be decreased from 30.5 meters to 15.2 meters. The separation distance between a wetland and the disposal field could also be decreased from 30.5 meters to 15.2 meters. These changes will allow for more flexibility when installing septic tank disposal systems on smaller sized lots but still maintains an adequate level of environmental protection.

3. **Amalgamation of undersized lots:** It is proposed that an applicant be permitted to amalgamate two small lots which currently do not meet today's standards. With the current regulations, this is not permitted as the total area of the combined lots does not meet Schedule A of the regulations. The proposed change would allow these lots to be amalgamated and developed as long as an on-site sewage disposal system could be designed and clearance distances met.

4. **Holding Tanks:** Another proposed change would allow for increased use of holding tanks for limited temporary use for the farming, community service facilities and the construction sector. Under the current regulations, holding tanks can only be installed in areas where there is insufficient land area and no other system can be designed. This causes hardship in some sectors of the business community. These proposed changes would allow for more flexibility for the

agricultural community where holding tanks could be installed for the harvest season as opposed to the installation of a complete system. Community service facilities could benefit from the installation of holding tanks for community or church halls, where the usage is relatively limited. As well the construction industry would be permitted to install holding tanks at construction sites for limited periods of time(i.e. two years), while facilities are being constructed, thus preventing the disposal system from being destroyed or altered during the construction phase.

5. **Septic Pumpers:**. The Septic Pumpers of Nova Scotia have requested inclusion in the On-Site Regulations, that would assist their association. Their proposal is to develop training for their members, and have a certification program similar to installers. Improved professionalism and better waste management techniques would be the desired outcomes of the proposed changes.

6. **Appeal Section:** It is proposed that the appeal section be removed from the Regulations, as the appeal section is available under the Environment Act. This section is considered redundant.

Questions and Comments:

Comments on this report should be forwarded to:

On-site Sewage Disposal Systems Regulations Review
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5151 Terminal Road,
Halifax, NS B3J 2T8.

For questions on the planned implementation for other areas of the Province please contact:

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